

NPS PROJECT SUMMARY SHEET

AWARD FISCAL YEAR: 2009

PROJECT TITLE: Northeast Glacial Lakes Watershed Improvement and Protection Project – Segment 2

NAME, ADDRESS, PHONE AND E-MAIL OF LEAD PROJECT SPONSOR:

Day County Conservation District
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Webster, South Dakota 57239

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PROJECT TYPE: Watershed

PROJECT LOCATION: Latitude 45° 20'25"N Longitude 97° 30'40"W

WATERSHED NAME: Upper Big Sioux River Basin, Upper James River Basin, Red River Basin

HYDROLOGIC UNIT CODE (HUC): 10160010, 10160005, 09020105

HIGH PRIORITY WATERSHED: Yes **POLLUTANT TYPE:** Nutrients, Sediment, and Bacteria

UWA CATEGORY:

TMDL DEVELOPMENT: No

TMDL IMPLEMENTATION: Yes

TMDL PRIORITY (High, Medium, Low): High

WATERBODY TYPES: Lakes, Streams, and Wetlands

ECOREGION: Northern Glaciated Plains

PROJECT CATEGORY: Agricultural/Animal Feeding Operations

PROJECT FUNCTIONAL CATEGORY: BMP Implementation/Design

GROUNDWATER PROTECTION: No

Total 319 Funds: \$ 769,442.00 (Segment 2)

\$ 390,000.00 (Segment 1)

Local and State Match: \$ 490,185.00 (Segment 2)

319 Funded Full Time Personnel: 2.0

Total Project Cost: \$ 1,259,627.00 (Segment 2)

GOAL:

The goal of this project is to protect and improve the water quality of northeast South Dakota glacial lakes by implementing best management practices that reduce the amount of fecal coliform bacteria, nutrients, and sediment loads entering project water bodies, maintaining their assigned beneficial uses.

PROJECT DESCRIPTION:

This is the second segment of a multi-year locally led effort to implement best management practices recommended by completed watershed assessments, and to build on previous efforts and protect water quality improvements realized from previous implementation projects. This proposal is the second of several-planned implementation segments. Other lakes and reservoirs will be added to future segments as assessments are completed and needs reevaluated.

2.0 STATEMENT OF NEED

2.1

The Northeast Glacial Lakes Watershed Improvement and Protection Project is a multi-year project designed to restore and protect the water quality of lakes located in Day, Marshall, and Roberts counties of northeast South Dakota. Priority water bodies for improvement and restoration due to TSIs not fully supporting their designated beneficial uses include Blue Dog Lake, South Red Iron Lake, Lake Traverse, and White Lake Dam (highlighted in red Table 2); and water bodies targeted for protection activities to maintain the full support of designated beneficial uses include Pickerel Lake, Clear Lake, and Enemy Swim Lake (highlighted in blue Table 2). Lower priority watersheds with recently completed assessments listed in Table 2 include Amsden Dam, South Buffalo Lake, Nine Mile Lake, and Minnewasta Lake.

The best management practices (BMPs) planned will reduce nutrients, sediment, and fecal coliform bacteria loading and thereby;

- protect and support the designated beneficial uses,
- address water quality impairments identified during watershed assessments,
- and support TMDLs resulting from these studies.

Table 1 lists the beneficial uses for the lakes and reservoirs in the project area. Table 2 gives current Trophic State Indexes (TSI), status of Total Maximum Daily Loads (TMDL), 303 (d) listing, and impaired beneficial uses and reasons for impairment for each lake or reservoir.

This proposal is the second of several-planned implementation segments designed to restore and protect the water quality of lakes in northeast South Dakota listed in Table 1 and others that will be added to the project during subsequent project segments.

Table 1: Beneficial Uses Designated for Targeted Project Waterbodies

Beneficial Use:	Amsden Dam	Blue Dog Lake	So. Buffalo Lake	Clear Lake	Enemy Swim Lake	Minnewasta Lake	Nine Mile Lake	Pickerel Lake	Pierpont Lake	So. Red Iron Lake	Lake Traverse	White Lake Dam
(1) Domestic water supply												X
(4) Warmwater permanent fish life propagation	X	X		X	X			X	X	X	X	X
(5) Warmwater semipermanent fish life propagation			X			X	X					
(7) Immersion recreation	X	X	X	X	X	X	X	X	X	X	X	X
(8) Limited contact recreation	X	X	X	X	X	X	X	X	X	X	X	X
(9) Fish & wildlife propagation, Recreation and stock watering	X	X	X	X	X	X	X	X	X	X	X	X
(10) Irrigation waters											X	

Table 2: Water Quality Data and Impaired Beneficial Uses for Priority and Targeted Water Bodies

Waterbody	Mean TSI (Sec-Chl)	TSI Fully Supporting Uses # 4 & 5	303 (d) Listed	Impaired Beneficial Use and Cause*						
				1	4	5	7	8	9	10
Blue Dog Lake	66.4	≤58.4	No	NA	Non (TSI)	NA	Non (Fecal coliform)	NA	Full	NA
So. Red Iron Lake	61.3	≤58.4	Yes	NA	Non (TSI)	NA	Full	Full	Full	NA
Lake Traverse	61.3	≤58.4	Yes	NA	Non (TSI)	NA	Full	Full	Full	Full
White Lake Dam	64.2	≤58.4	No	Full	Non (TSI)	NA	Full	Full	Full	NA
Pierpont Lake	Being Assessed	≤58.4	No	NA	Full	NA	Not assessed	Not assessed	Full	NA
Pickrel Lake	51.1	≤58.4	No	NA	Full	NA	Full	Full	Full	NA
Clear Lake	48.3	≤58.4	No	NA	Full	NA	INS	Ins	Full	NA
Enemy Swim Lake	49.5	≤58.4	No	NA	Full	NA	Full	Full	Full	NA
So. Buffalo Lake	58.0	≤63.4	No	NA	NA	Full	Full	Full	Full	NA
Nine Mile Lake	54.2	≤63.4	No	NA	NA	Full	Full	Full	Full	NA
Minnewasta Lake	56.6	≤63.4	No	NA	NA	Full	Full	Full	Full	NA
Amsden Dam	54.1	≤ 58.4	No	NA	Full	NA	Full	Full	Full	NA

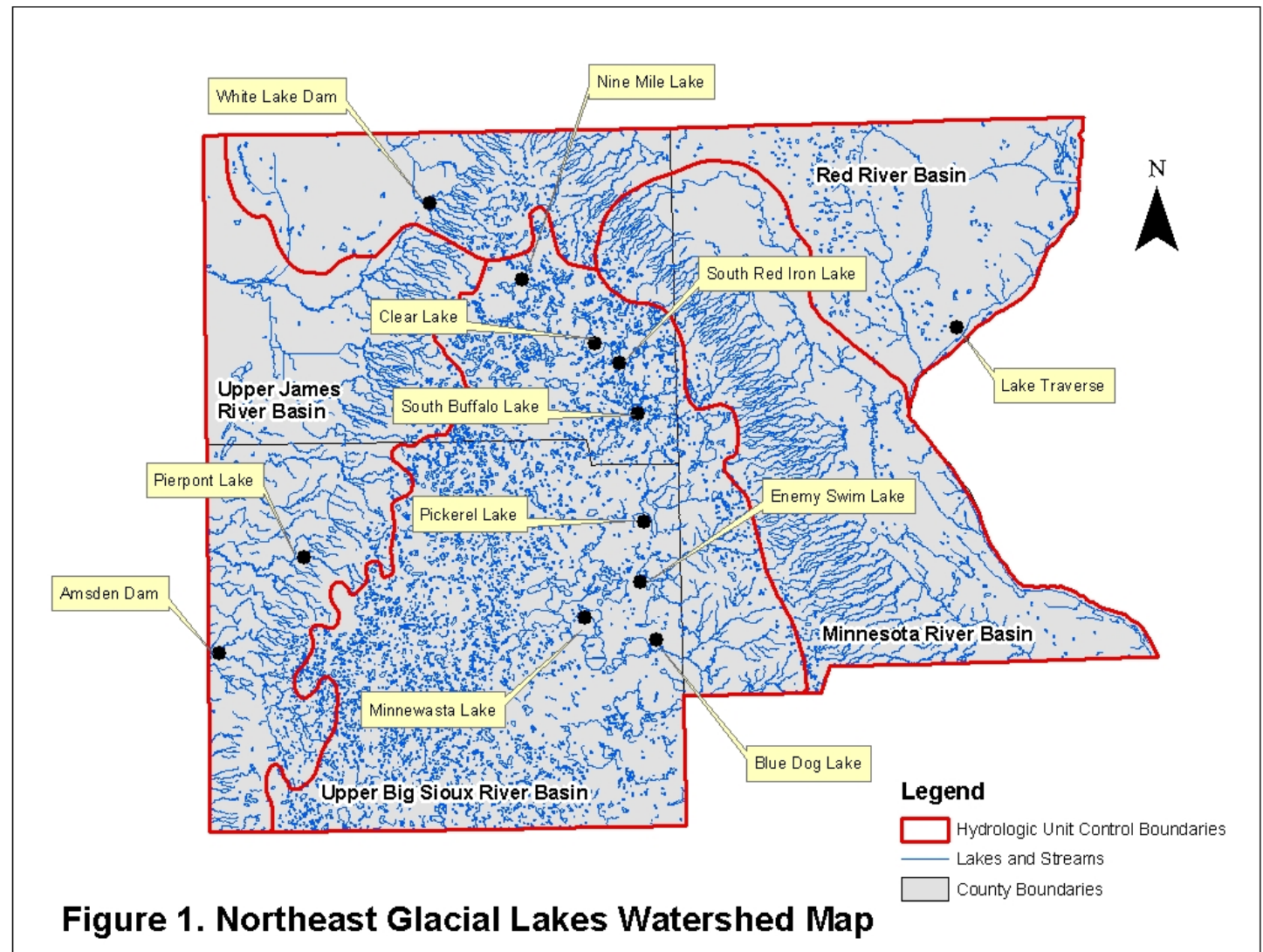
* Number corresponds to beneficial uses listed in Table 1

2.2

The Northeast Glacial Lakes Watershed Protection and Improvement Project encompass three northeast South Dakota counties: Day, Marshall, and Roberts, and portions of three major river basins; Big Sioux, James, and Red Rivers (Figure 1). Table 3 lists the water bodies with attributes targeted during this segment of the project.

Table 3: Attributes of Targeted Project Water Bodies

River Basin and Waterbody	County	Longitude Latitude	Watershed Area (acres)	Maximum Depth (feet)	Surface Area (acres)	Shoreline Length (miles)	Watershed to Lake Ratio	Waterbody Type
<u>Upper Big Sioux River Basin</u> HUC # 10160010								
1. Blue Dog Lake	Day	45° 21'06"N 97° 17'48"W	73,811	8	1,502	8.7	49/1	Natural
2. Buffalo Lake	Marshall	45° 37'00"N 97° 16'48"W	16,781	12	1,780	27.8	9/1	Natural
3. Clear Lake	Marshall	45° 41'36"N 97° 21'36"W	11,682	20	1,087	7.6	11/1	Natural
4. Enemy Swim Lake	Day	45° 26'24"N 97° 16'00"W	22,310	26	2,146	11.8	10/1	Natural
5. Minnewasta Lake	Day	45° 23'24"N 97° 21'42"W	2,564	14	601	5.5	4/1	Natural
6. Nine Mile Lake	Marshall	45° 46'04"N 97° 29'26"W	NA	10	282	4.5	NA	Natural
7. Pickerel Lake	Day	45° 30'24"N 97° 16'24"W	17,165	43	931	9.7	18/1	Natural
8. Red Iron Lake	Marshall	45° 40'12"N 97° 19'06"W	9,862	15	610	7.5	16/1	Natural
<u>Upper James River Basin</u> HUC # 10160005								
9. Amsden Dam	Day	45° 21'30"N 97° 58'06"W	31,961	27	235	5.9	136/1	Reservoir
10. Pierpont Lake	Day	45° 27'42"N 97° 49'48"W	5,885	16	77	2.2	76/1	Reservoir
<u>Red River Basin</u> HUC # 09020101								
11. Lake Traverse	Roberts	45° 42'12"N 97° 44'06"W	729,005	12	11,530	40.3	63/1	Natural
12. White Lake Dam	Marshall	45° 51'36"N 97° 36'54"W	21,184	20	187	6.3	113/1	Reservoir



2.4

The majority of the water bodies located in Day and Marshall County portions of the project area lie atop high tableland early French explorers named the Coteau Des Prairie or Hill of the Prairies. The topography of the Coteau was formed by the stagnation of glacial ice during the Late Wisconsin Glaciations that occurred approximately 12,000 years ago. As the glacier stagnated and began to fragment and melt, large blocks of ice were buried in melt water outwash. Melting of the ice blocks left depressions in the outwash of various size and depth. These depressions are the thousands of potholes, sloughs, and lakes characteristic of the modern day topography of the Coteau Des Prairie.

Melt water flowing from the top of the Coteau cut several deep channels along the eastern and western slopes. Along the eastern slope of the Coteau, these channels, called coulees are deep enough to expose groundwater that lies above the Pierre shale bedrock. The groundwater flowing above the bedrock forms dozens of small perennial streams that are the headwaters of the Red River that flows north and the Minnesota River that flows east. East facing coulees provide cool-wet conditions that support remnants of the eastern deciduous forest community. The much drier western slope of the Coteau supports fewer perennial streams. The few wooded coulees that exist are dominated by bur oak. Many of the perennial streams that flow from the western slope have been dammed to form reservoirs. Among these are Amsden Dam and Pierpont Lake. These two reservoirs discharge to the James River basin.

Many of the lakes perched atop the Coteau are situated in closed basins. The largest closed basin is called the Eastern Lakes Subsystem, or more recently the Waubay Lakes Chain. The Eastern Lakes Subsystem is comprised of eleven major lakes that include Blue Dog, Enemy Swim, and Pickerel Lakes; and several minor lakes including Minnewasta. A group of aquifers and several surface drainages surround and connect these lakes. While the Eastern Lakes Subsystem is closed, the potential exists for these lakes to eventually drain to the Big Sioux River Basin. This potential was realized in the 1990's when greater than normal precipitation, and less than normal evaporation caused many of the lower lakes in the subsystem to rise twenty feet above normal lake level elevations.

Buffalo Lakes, Clear Lake, and Red Iron Lakes lie in the Coteau lakes outwash deposit. Like the Eastern Lakes Subsystem, aquifers and surface drainages connect these Marshall County lakes.

The watershed of White Lake is located at the northwest base of the Coteau. This reservoir is located on the Wild Rice River that drains to the Red River Basin system.

Lake Traverse lies in the main channel of what remains of the River Warren, the major outflow channel of pro-glacial Lake Agassiz formed approximately 10,000 years ago. The South Dakota watershed of Lake Traverse is relatively small with one tributary, Jim Creek. The majority of Lake Traverse's watershed (90%) lies in Minnesota. Lake Traverse drains into the Bois De Sioux River, a tributary of the Red River that drains north to Lake Winnipeg.

Soil associations found in the project area vary greatly.

The major soil associations found in Day County include:

- Great Bend-Beotia, Ludden, and Harmony-Aberdeen-Nahon - level to moderately sloping, silty and clayey soils on glacial lake plains and flood plains
- Nutley-Sinai - level to gently sloping, clayey soils on ice-walled lake plains
- Forman-Buse-Parnell, Buse-Barnes, and Forman-Aastad-Cavour - level to steep, loamy and silty soils on till plains and moraines
- Kranzberg-Brookings, Poinsett-Waubay-Forman, and Vienna - level to gently rolling, silty and loamy soils on till plains and moraines
- Divide-Colvin, Renshaw-Fordville, and Sioux-Renshaw - level to steep, silty and loamy soils on outwash plains and channels

The major soil associations found in Marshall County include:

- Maddock-Serden, Embden-Hecla-Ulen, Beotia-Great Bend, and Harmony-Aberdeen-Exline - excessively drained to somewhat poorly drained soils formed in lacustrine materials on glacial lake plains
- Kranzburg, Forman-Poinsett, and Sinai-Poinsett - well-drained soils formed in loess on upland
- Forman-Aastad Buse, and Peever-Forman-Tonka - well-drained to poorly drained soils formed in glacial till on uplands
- Renshaw-Fordville-Sioux - well-drained to excessively drained soils formed in glacial outwash on uplands
- Dovray-Ludden-Lamoure - somewhat poorly drained to poorly drained soils formed in alluvium on bottom lands

The major soil associations found in Roberts County include:

- Heimdal-Svea-Sisseton, and Poinsett-Eckman-Heimdal - well drained and moderately well drained soils formed in glacial drift and lacustrine silts on uplands
- Peever, Forman-Aastad, Peever-Tonka, Forman-Aastad-Buse, and Hamerly-Vallers - well-drained to poorly drained soils formed in glacial till on uplands
- Renshaw-Fordville - somewhat excessively drained and well drained soils formed in outwash sediment on uplands and terraces
- Vienna - well-drained soils formed in loess and glacial till on uplands
- Marsh-Antler-Hamerly, Towner-Hecla-Hamar, Doran, and Glyndon-Gardena - moderately well drained to poorly drained soils formed in lacustrine sediment, glacial melt-water deposits, and glacial till on uplands
- Ladelle-Playmoor-Lamoure, and Dovray-Ludden-Lamoure - moderately well drained and poorly drained soils formed in alluvium on bottom lands, low terraces, and upland flats

Agriculture is the major land-use. Ownership and agricultural data for the each county in the project area are given in Table 4.

Table 4. Land Ownership and Agricultural Data

	County		
*Data from South Dakota Agricultural 2006 Bulletin No. 66	<u>Day</u>	<u>Marshall</u>	<u>Roberts</u>
Population (2002 census)*	6,267	4,576	10,016
Land Area* (Acres)	658,329	536,888	704,856
Land Ownership			
Private (Acres)	626,319	483,944	627,087
Tribal (Acres)	10,033 acres	26,363	66,448
Federal (Acres)	10,679 acres	11,180	5,117
State (Acres)	11,298 acres	15,401	6,204
Agricultural Data			
Number of Farms*	704	529	936
Total Cropland* (Acres)	375,052	339,758	449,241
Corn/Soybeans* (Acres)	180,500	176,000	233,500
Small Grain* (Acres)	80,200	27,500	77,100
CRP (Acres)	91,209	55,629	61,341
Hay* (Acres)	45,000	39,000	68,000
Range/Pasture (Acres)	155,900	170,000	139,000
Livestock Numbers* (2002 census)			
Cattle	43,159	88,141	55,181
Swine	1,055	10,810	16,862
Sheep	3,023	3,644	8,798

The climate of the project area is classified as Sub-humid Continental. Mean climatic conditions of the area are:

- Winter Average Daily Minimum Temperature - 4 degrees F
- Summer Average Daily Maximum Temperature - 82 degrees F
- Total Annual Precipitation - 21 inches
- Average Seasonal Snowfall - 31 inches

Approximately 75 percent (=16 inches) of the annual precipitation falls between the months of April to September. Tornadoes and severe thunderstorms occasionally strike. These storms, usually local and of short duration, occasionally produce heavy rainfall. (Data from Webster, SD reporting station)

2.5

Land use in the project area is predominately agricultural. The main non-point pollutants are fecal coliform bacteria, nutrients, and sediments carried by watershed runoff. Numerous lake assessments have been completed. Assessments for the Amsden Dam, Minnewasta Lake, and White Lake watersheds were completed during 2006. Assessment data for Lake Traverse, Nine Mile, South Buffalo, and South Red Iron Lakes has been collected and is currently being analyzed. Watershed implementation projects were completed for Pickerel Lake during 1996, Enemy Swim Lake during 2005, and Blue Dog Lake during 2006. This project will build on these previous efforts and protect water quality improvements realized from previous projects and maintain these lakes designated beneficial uses.

Completed implementation, assessment and TMDL reports can be found at:

<http://www.state.sd.us/denr/DFTA/WatershedProtection/tmdlpage.htm>

3.0 PROJECT DESCRIPTION

3.1 Goals

This project is the second segment of an area wide water quality improvement/protection strategy. The project goal is:

“Restore and protect the water quality of northeast South Dakota glacial lakes.”

To attain the goal, the following actions will be completed:

- Implement the strategic plan developed during project segment 1.
- Implement BMPs that reduce nutrient, fecal coliform bacteria, and sediment loads to targeted waterbodies.
- Implement a public outreach program to inform project area stakeholders about the opportunities for involvement in and progress of the project.
- Track project milestones and progress toward reducing nutrient, fecal coliform bacteria and sediment loadings to targeted waterbodies.

3.2 Objectives and Tasks

Objective 1: Complete activities that will lead to successful protection and restoration of the beneficial uses of lakes and reservoirs in northeast South Dakota.

Task 1: Institute the project management structure developed during Segment 1 to guide successful protection and restoration of lakes and reservoirs in northeast South Dakota.

An advisory council made-up of local, state, tribal, and federal partners will continue to manage the Northeast Glacial Lakes Watershed Improvement and Protection Project (See Section 4.1). The council was formed during the first segment of the project and will oversee the implementation of the strategic plan completed during segment 1, annually review the practice

manual that establishes priorities for BMP implementation, and develop the work plan for the third and subsequent project segments. Revised memoranda of understanding that define the responsibilities and obligations of each district in the support and execution of Segment 2 will be entered into between the Day, Marshall, and Roberts Conservation Districts. A Project Conservation Technician will be hired by the project sponsor to aid in the implementation of project activities within the three county project area.

Product:

1. Project management structure.

Milestones for activities included in the management structure are listed below.

Milestones:

Advisory council	3
Memoranda of Understanding	2
Project Conservation Technician	1
Project segment 3 workplan	1

Responsibility:

Implementation:	Project Coordinator Advisory Council
Technical Assistance:	SD DENR Advisory Council
Financial Assistance:	319 Funds Conservation Commission JRWDD (Marshall Co.)

Cost:

Wages and Benefits included in personnel	
Laptop Computer	\$2,000
Office Rent for Project Personnel - 3 years @ \$4,000/year	\$12,000

Total Cost: \$14,000

319 Cost: \$2,000

Objective 2: Install best management practices (BMPs) in critical areas to protect and restore the beneficial uses of lakes and reservoirs in northeast South Dakota.

The BMPs planned are based on those recommended in the assessments and TMDLs, and identified during implementation of the project work plan(s). It is anticipated that as additional studies and TMDLs are completed for water bodies in the project area, the suite of BMPs offered will change accordingly.

Task 2: Install BMPs that reduce nutrient, sediment, and fecal coliform bacteria nonpoint source pollution originating from livestock operations.

Assistance will be provided to livestock producers to reduce nonpoint source pollution associated with livestock feeding operations (AFOs) and grazing.

Product:

2. Animal waste management systems

Three (3) animal waste management systems (AWMS) will be funded in Segment 2 to reduce nutrient, fecal coliform bacteria, and sediment loading to water bodies located in the project area. The systems planned include both conventional (zero-discharge), alternative systems with the type of system being dependant on site conditions and operator preference, or relocating feedlots to less sensitive locations.

Milestones:

Engineering Services	2
Conventional AWMS	1
Alternative AWMS	1
Feedlot Relocation	1

Responsibility:

Implementation:	Project Coordinator Project Conservation Technician Local Conservation Districts Landowners
Design/Technical Assistance:	Technical Service Provider USDA NRCS SD DENR
Financial Assistance:	319 Funds Conservation Commission

Cost:

Engineering Services (2 @ \$15,000 ea.)	\$30,000
Conventional AWMS (1)	\$100,000
Alternate AWMS (1 @ \$60,000 ea.)	\$60,000
Relocation (1 @ \$75,000 ea.)	\$75,000

Total Cost: \$265,000

319 Cost: \$198,750

Product:

3. Riparian buffers

To reduce nutrient, fecal coliform bacteria, and sediment loads entering project water bodies from lakeshore and stream bank segments degraded by livestock, riparian buffers and grassed waterways will be established. Establishment of riparian buffers may require the installation of fence and the development of alternative watering sources. The Continuous Conservation Reserve Program (CCRP) CP8A Grassed Waterways, CP21

Filter Strips, and CP30 Marginal Pastureland-Wetland Buffer administered by USDA will be the preferred options for providing financial assistance for this product. If a site does not qualify for CCRP, riparian BMPs will be funded using 319 funds. The financial assistance from EPA 319 will follow the docket established by USDA for CCRP and requirements listed in the project's practice manual.

Milestones:

Continuous Conservation Reserve Program	300 Acres
EPA 319 Riparian Area Mgt. Program	375 acres

Responsibility:

Implementation:	Project Coordinator Project Conservation Technician USDA NRCS Landowners
Technical Assistance:	USDA NRCS SD DENR
Financial Assistance:	USDA FSA (CCRP) 319 Funds

Cost:

EPA 319 Riparian Area Mgt. Program:	
Signing, Incentive and Maintenance Costs	
At \$975/acre (\$65/acre x 15 years)	\$365,625.00
Alternative Water Development	\$84,525.00
Fence (13,000 lf. @ \$0.95)	\$12,350.00
Livestock Crossings (4 @ \$3,750)	\$15,000.00

Total Cost: \$477,500

319 Cost: \$286,500

Product:

4. Pasture/Hayland Planting

To reduce water and wind erosion on cropland located in critical areas pasture and hayland where CRP is not applicable, plantings of tame and/or exotic grasses and legumes will be established.

Milestones:

Pasture/Hayland Planting	350 Acres
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Responsibility:

Implementation:	Project Coordinator Project Conservation Technician
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USDA NRCS
Landowners

Technical Assistance: USDA NRCS

Financial Assistance: Conservation Commission

Cost:

Seed, seedbed preparation, and seeding
Operation @ \$40/acre x 350 acres \$14,000.00

Total Cost: \$14,000

319 Cost: \$0

Product:

5. Grazing Management Improvements

Through conservation planning, pasture health and rangeland condition will be improved on 3,000 acres of grassland. Resource technicians will work with landowners to promote and implement basic grazing management principles such as rotation, rest, grass banking, and other BMPs that sustain quality grasslands. If needed, financial assistance for implementing conservation practices like cross fence and water development (ponds, pipelines, tanks, wells, solar systems, nose pumps) will come from the NRCS Environmental Quality Incentive Program (EQIP), FWS “Partners for Wildlife” program, GFP “Private Lands Program”, and SD Coordinated Soil and Water Conservation commission grant funds.

Milestones:

3,000 acres of grazing management

Responsibility:

Implementation: Project Coordinator
Project Conservation Technician
Conservation Districts
USFWS
GFP
NRCS
Landowners

Technical Assistance: NRCS (EQIP)
FWS
SD Grasslands Coalition
SD Nature Conservancy

Financial Assistance: NRCS (EQIP)
USFWS
Conservation Commission

Cost:

Fence (5,000 LF @ \$.95 LF)	\$4,750
Water Development	\$50,500

Total Cost: \$55,250**319 Cost: \$0**

Task 3: Reduce sediment loads entering project water bodies by reducing shoreline and stream bank erosion.

Product:**6. Shoreline and stream bank stabilization**

Shoreline and stream bank erosion will be stabilized using hard (rip-rap) and soft (vegetative) practices.

Milestones:

Shoreline Stabilized	1,500 LF (hard practices)
	2,000 LF (soft practices)

Responsibility:

Implementation:	Project Coordinator Project Conservation Technician Local Conservation Districts Landowners
Technical Assistance:	Technical Service Provider SD DENR NRCS
Financial Assistance:	319 Funds Conservation Commission

Cost:

Hard Practices (1,500 LF @ \$75 LF)	\$112,500
Soft Practices (2,000 LF @ \$5 LF)	\$10,000

Total Cost: \$122,500**319 Cost: \$73,500**

Objective 3: Implement a public outreach program to inform project area stakeholders about the opportunities for involvement in, and progress of the project.

Task 4: Develop and implement a multimedia outreach program to promote the project, offer opportunities for involvement, and inform the public of project progress.

Product:**7. Project web site**

A project web site developed during Segment 1 will be maintained and updated to inform and educate the public on project opportunities and activities. The web site will contain information on each water body, downloadable fact sheets, calendar of events, workshops and meetings, information on BMPs available to landowners, photo gallery, project articles and news releases, and direct links to other websites useful to agricultural producers (weather, USDA, extension).

Milestones:

Number time's site accessed	1,200 (3 years)
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Responsibility:

Implementation:	Project Coordinator SDACD
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Technical Assistance:	SD DENR SDACD
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Financial Assistance:	319 Funds
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Cost:

Domain Name (\$120/year x 3 years)	\$360.00
Web site maintenance (\$35/hour x 42 hrs. x 3)	\$4,410.00

Total Cost: \$4,770***319 Cost: \$4,770*****Product:****8. News Releases**

Local radio, television, and print media will be used to inform the public about project opportunities and activities.

Milestones:

New Articles (Participating partner newsletters; Sisseton, Webster, and Britton newspapers)	6 (2 per year)
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Radio/Television Interviews	6 (2 per year)
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Responsibility:

Implementation:	Project Coordinator Conservation Districts
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Technical Assistance:	SD DENR Conservation Districts
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Financial Assistance: 319 Funds
Local Partners

Cost:
Included in personnel

Product:
9. Direct personal contact with and involvement in project opportunities

Displays, public meetings, forums, and workshops will provide project area residents a direct personal contact with the project and project involvement opportunities. The project or project partners will sponsor public meetings. Print material will be developed and distributed at these public events.

Milestones:
Day County Farm, Home and Sports Show - 3
Sisseton Winter Show - 3
Britton Winter Festival - 3
Fact Sheets - 4

Responsibility:
Implementation: Project Coordinator
Project Conservation Technician
Advisory Council
Conservation Districts

Technical Assistance: SD DENR
Water Resources Institute
NRCS

Financial Assistance: 319 Funds
Conservation Districts
JRWDD (Marshall Co.)

Cost:
Winter shows (booth rental 9 @ \$75 ea.) \$675.00
Fact Sheets (copier paper @ \$10 ream) \$50.00
Postage (\$120 per year x 3) \$360.00

Total Cost: \$1,085 *319 Cost: \$0*

Objective 4: Monitor, Evaluate, and Report Project Progress

Task 5: Evaluate the effectiveness of selected past watershed efforts to determine if any BMP implementation needs to be made in future segments of this project to protect or improve water quality of selected lakes and reservoirs.

Product:

10. Water quality data

Comprehensive in-lake water quality sampling will continue during this segment on Clear Lake, Enemy Swim Lake, and Pickerel Lake. Composite surface and bottom water samples will be taken during May, June, July, August, and September from two to three sites each water body. Tributary sampling will also be conducted during the first year of the project in Pickerel Lake's watershed. Laboratory analysis will be conducted at the Water Resources Institute Laboratory and the South Dakota State Health Laboratory. Dakota Water Watch volunteer monitoring program will be utilized on Blue Dog Lake, Buffalo Lake, Red Iron Lake, and Roy Lake. Data from these monitoring programs will be used to evaluate the effectiveness of past watershed efforts and determine if any BMP implementation needs to be made in this and future segments of the project to protect or improve water quality of these lakes. Sections 5.1 and 5.2, details operating standards, QA/QC, and field and laboratory parameters to be tested.

Milestones:

Clear Lake	10 sample sets per year (May – Sept.) (year 1 only)
Enemy Swim Lake	6 sample sets per year (June – August) (year 1 only)
Pickerel Lake	10 sample sets per year (May – September)
Blue Dog Lake	2 sample sets per year (June and August)
Buffalo Lake	2 sample sets per year (June and August)
Red Iron Lake	2 sample sets per year (June and August)
Roy Lake	2 sample sets per year (June and August)
Pickerel Lake Tributaries	Samples March through October (year 1 only)

Responsibility:

Implementation:	Project Coordinator Resource Conservation Technician Water Resources Institute Dakota Water Watch Volunteers
Technical Assistance:	SD DENR Water Resources Institute East Dakota Water Development District
Financial Assistance:	Clear Lake Betterment Association Enemy Swim Sanitary Sewer District Greater Pickerel Lake Sanitary Association

Water Resources Institute
Day Conservation District
East Dakota Water Development District
Nonpoint Source Information & Education Grant

Cost:

Comprehensive In-Lake Sampling; 46 samples @ \$143 per sample:	\$6,578.00
In-kind boat/storage/equipment:	\$3,000.00
Dakota Water Watch: In-kind boat/travel:	\$3,000.00
Pickerel Lake Tributary Study	\$7,800.00

Total Cost: \$20,378.00

319 Cost: \$0

Task 6: Reports detailing project activities as required by the U.S. Environmental Protection Agency, South Dakota Department of Environment and Natural Resources; and participating agencies and associations will be prepared and submitted

Product:

11. Project reports

The reports and milestones for each include;

- GRTS reports submitted electronically to SD DENR to meet reporting requirements for 319 funds. Reports will include information on project milestones completed and planned; load reductions for BMPs installed as estimated by the Step-L model; and locations where BMPs have been installed and/or in use utilizing ArcMap.

Milestones:

Annual Reports (GRTS) 3 (1 per year)

- Written monthly and semi-monthly progress and financial reports will be submitted to the project sponsor and co-sponsors. These will be submitted electronically or by attendance of the Project Coordinator.

Milestones:

Monthly Progress/Financial Reports
Marshall, Roberts Conservation Districts 18 (semi-monthly)
Day Co. Conservation District 36 (monthly)

- A year-end annual report will be submitted to the local Advisory Council. Reports will include specific information on milestones reached during each year of the project.

Milestones:

Annual Reports

3 (1 per year)

- Final Report

The final project report will follow EPA format requirements and include the final status of all project milestones, final project budgets, pictures of project activities, and maps showing the locations of completed BMPs.

Milestones:

Final Project Report

1

Responsibility:

Implementation:

Project Coordinator
Advisory Council

Technical Assistance:

SD DENR

Financial Assistance:

319 Funds
Conservation Districts
JRWDD (Marshall Co.)

Cost:

Included in personnel

Total Cost: \$0

319 Cost: \$0

3.3 Milestones (See Milestone Table, page 25)

3.4 Permits

The sponsor will secure all necessary permits including storm water construction permits, and Section 404 and 401- certification prior to implementation of any grant funded activity that may fall under applicable laws (federal, state or local). Cultural resource surveys will be conducted on required undertakings by a certified archaeologist hired by the project. If any cultural resources are found, the State Historical Preservation Officer (SHPO) will be contacted.

3.5 Lead Project Sponsor

The Day County Conservation District is the project sponsor. The Day County Conservation District sponsored and completed two 319-funded assessment projects and three 319-funded implementation projects. The project will be completed in cooperation with the Marshall and Roberts Conservation Districts as was described previously. Both districts have completed and or participated in previous successful Section 319 projects.

3.6 Operation and Maintenance Responsibilities

Operation and maintenance responsibilities for conservation practices installed will be detailed in contracts between the respective Conservation District and landowner installing the practice.

The contracts for conservation practices will specify operation and maintenance needs, procedures for practice failure or abandonment, and the life-span practices will be maintained for the terms agreed upon in the contract. Respective County Conservation Districts will be responsible for completing operation and maintenance scheduling, on-site visits, and follow-up with landowners and producers when actions need to be taken to ensure the practice is maintained throughout its intended lifespan.

4.0 COORDINATION PLAN

4.1 Participating Groups and Agencies

The lead sponsor for this project is the Day County Conservation District. The district will administer and coordinate day-to-day work plan activities. An advisory council with representatives from the resource agencies and organizations listed below will advise the project sponsor, and develop priorities, practice manuals, work plans and strategies for this and future project segments.

- **U.S. Environmental Protection Agency (EPA)** – Primary funding source for project (EPA Section 319 Grant). Region 8 EPA Officials will be invited to participate in project reviews, be provided access to project reports through GRTS, and grant final approval of the project implementation plan and final report as submitted through SD DENR.
- **South Dakota Department of Environment and Natural Resources (SD DENR)** – Administer EPA Section 319 grant funds and provide oversight of all project activities. Project administration will include on-site office visits, watershed tours, review/initial approval of reports, and approval of payment requests for 319 funds.
- **Marshall County Conservation District** – Project partner/co-sponsor by MOU, local support and funding.
- **Roberts County Conservation District** – Project partner/co-sponsor by MOU, local support and funding.
- **Natural Resources Conservation Service (NRCS)** – Provide technical assistance for BMPs through District Conservationists, Soil and Range Conservationists, and Tribal Liaison. Provide program funds for Environmental Quality Incentive Program (EQIP).
- **Farm Service Agency (FSA)** – Provide program funds for Conservation Reserve Program (CRP) and Continuous Conservation Reserve Program (CCRP).
- **U.S. Fish and Wildlife Service (FWS)** – Technical advice and cost-share funds through the “Partners for Fish and Wildlife” program for grazing improvements, small dams, wetland restoration, and grass seeding.
- **South Dakota Game, Fish, and Parks (GFP)** – Technical advice and cost-share funds through the Department’s “Private Lands Programs” for grazing improvements, wetland restoration, and grass seeding.

- **South Dakota Department of Agriculture** – Funding through the South Dakota Coordinated Soil and Water Conservation Commission Grant for technical assistance and conservation practice implementation.
- **South Dakota Association of Conservation Districts (SDACD)** – Technical advice and website hosting.
- **South Dakota State University, Water Resources Institute (WRI)** – Technical advice, water quality analysis and funding.
- **James River Water Development District (JRWDD)** – Local support and funding for western Day County and Marshall County activities.
- **East Dakota Water Development District (EDWDD)** – Local support and funding for eastern Day County activities.
- **Enemy Swim Lake Sanitary Sewer District** – Local support and funding for water quality testing.
- **Pierpont Town Board** – Local support and funding for Pierpont Lake restoration.
- **Greater Pickerel Lake Association** – Local support and funding for water quality testing.
- **Clear Lake Association** – Local support and funding for water quality testing.
- **Ne-So-Dak Environmental Learning Center** – Local support, campus and staff for workshops and Lakes Are Cool program.

4.2 Local Support

Development of the project was supported by several local entities. The Day, Marshall, and Roberts Conservation Districts have recently completed watershed assessments in their respective counties. District Board of Supervisors composed of local landowners and agricultural producers have passed resolutions supporting a multi-county implementation project to address water quality issues identified by assessment projects. The Pierpont Town Board, Clear Lake Association, Greater Pickerel Lake Association, Pickerel Lake Sanitary Sewer District, and Enemy Swim Sanitary Sewer District all support the watershed improvement and protection activities planned. The activities will protect their investments and infrastructures. Conservation District Board minutes and letters of commitment showing local support for the project have been forwarded to the SD DENR.

4.3 Coordination with Other Programs

Through the Advisory Council other programs that will enhance and further the goals of the project will be identified and coordinated with Section 319 funded activities. These include but not limited to:

- Rapid Watershed Assessment Program (USDA NRCS)
- Conservation Reserve Program (USDA FSA)
- Partners for Fish and Wildlife (USF&WS)
- Project Coordinator training workshops (SD DENR)
- Technical training (USDA NRCS)
- South Dakota Nonpoint Source Information and Education Project
- Dakota Water Watch volunteer lake monitoring program

4.4 Similar Activities in Watersheds

This project will coincide with several EPA funded projects.

On-going and Future Watershed Assessment Projects

A watershed assessment of Roy Lake was undertaken during segment one. The completed TMDL for Roy Lake and any other watersheds completed during the second segment of this project will be addressed in future segments of the Northeast Glacial Lakes Watershed Protection and Improvement Project.

South Dakota Nonpoint Source Information and Education Project

Resources from this project, funded by a Section 319 grant to the South Dakota Discovery Center, will be used to enhance information and education efforts for this project. Anticipated uses of the projects assistance activities include training for volunteer lake monitors and water quality workshops for lake residents.

5.0 EVALUATION AND MONITORING PLAN

5.1 Quality Control and Assurance

Water quality sampling will be conducted in accordance with the EPA-approved “SOUTH DAKOTA NONPOINT SOURCE PROGRAM QUALITY ASSURANCE PROJECT PLAN” (QAPP), and the “STANDARD OPERATING PROCEDURES FOR FIELD SAMPLERS” (SOP), SD DENR, June, 2003. Water quality analysis will be completed at the Water Resources Institute located at South Dakota State University and the South Dakota State Health Laboratory located in Pierre, South Dakota.

5.2 Monitoring Strategy

Progress towards attaining the project goals by reaching the objectives through task completion will be monitored based on milestones. Progress will be reported in annual GRTS Reports; and semi-monthly and monthly reports to project sponsors and Advisory Council members. Local

support and partner contributions will be tracked through records of landowner time and financial contributions, and through attendance records at annual tours, informational meetings, and Project Coordinator presentations and contacts.

In-lake sampling of several project water bodies will be undertaken to monitor water quality changes due to project implementation and to better understand how project lakes react to changes in watershed land-use. Lakes to be monitored include Blue Dog Lake, Buffalo Lake, Clear Lake, Enemy Swim Lake, Pickerel Lake, and Roy Lake.

Water quality parameters, that will be monitored include:

Fecal Coliform	Total Solids	Total Suspended Solids
Alkalinity	Ammonia - N	Nitrate-Nitrite-N
Total Kjeldahl - N	Total Phosphorus	Total Dissolved Phosphorus

Analysis will be completed at the Water Resources Institute located at SDSU in Brookings, SD, and the State Health Lab located in Pierre, SD.

Water quality parameters, which will be monitored by the local sampler, include:

Dissolved Oxygen	Field pH	Water Temperature
Air Temperature	Field Observations	Seechi Depth

5.3 Data

The Project Sponsor will be responsible for collecting, storing, and managing data collected during implementation of this project. Data collected through in-lake water sampling will be forwarded to SD DENR in the appropriate format for entry into the STORET database.

The Water Resources Institute will analyze water quality data collected during this project and will compare this data with previous studies to determine positive or negative trends in water quality.

5.4 Models

The effectiveness of BMPs installed and load reductions achieved relative to improvement in water quality will be evaluated using tools available from SD DENR and NRCS. The following reductions will be reported;

- Assessment of AFOs for loading (before and after). AnnAGNPS will be used.
- Sheet, rill, and gully erosion formulas for soil loss and transport. RUSLE 2 will be used.
- Step-L model for changes in loadings resulting from BMP installation.

The Project Sponsor will consult with SD DENR and NRCS for technical assistance and training on which models to use and how to properly use them.

6.0 BUDGET

Part 1 Funding page 26

Part 2 Funding Segment 1 page 27

Part 2 Funding Segment 2 page 29

Combined Budget Segment 1 and 2 page 31

7.0 PUBLIC INVOLVEMENT

The Advisory Council will meet twice a year to provide guidance in the development of a project work plan, practice manual, and strategic plan for future project segments. Landowners and the public at-large will be informed through the projects web site, articles in existing agency newsletters, fact sheets, watershed tours, news releases to radio, television, and print media outlets, and local events like Farm, Home, and Sports Shows.

8.0 THREATENED AND ENDANGERED SPECIES

The U.S. Fish and Wildlife Service list the western prairie fringed orchid, bald eagle, whooping crane, and piping plover as species that could potentially be found in the project area. None of these species were encountered during the Amsden Dam, Minnewasta Lake, or White Lake Assessment Projects. However, bald eagle nests have been documented in or near several of the proposed project watersheds.

The procedures that will be followed to ensure the project will not adversely affect threatened and endangered species are based on the following premises:

The best management practices planned will promote the improvement of water quality which will benefit threatened and endangered species that depend on water. The occurrence of migratory endangered species is expected to be transitory, and if they are present project activities will cease until they have left the area.

The precautions that will be taken with respect to threatened and endangered species that could potentially be found in the area are as follows.

8.1 Western Prairie Fringed Orchid

At this time, there are no documented populations of the western prairie fringed orchid in South Dakota. *Platanthera praeclara* grows up to four feet tall and has two dozen or more white to creamy colored, one-inch long flowers on a stalk. This species is distinguished from eastern prairie fringed orchids by larger flowers, differing petal shape, and longer nectar spur. The flowers emerge in May, bloom from June to July, and are pollinated by sphinx moths. Fringed orchids are found in tall grass prairies, most often in moist habitats or sedge meadows, and require direct sunlight for growth. They persist in areas disturbed by light grazing, burning, or mowing. Western prairie fringed orchids are known to have occurred historically from northeastern Oklahoma, north through Kansas, Missouri, Nebraska, Iowa, Minnesota, North and South Dakota. The greatest threat to the species is conversion of tall grass prairie to other land

uses. If an orchid is observed at any project work site, all mechanical activities at the site will be suspended. Work will be altered or the plant(s) protected so no harm will come to it.

8.2 Bald Eagle

The bald eagle can be found near water, primarily on river systems, large lakes, reservoirs, and coastal areas. Bald eagles typically prefer large trees for perching and roosting. Best management practices should avoid the destruction of large trees that may be used as bald eagle perches, particularly if an eagle is observed using a tree as a perch or roost. No project activities are planned that will disturb possible nesting sites or reduce food sources. If any actions become necessary during the project that might impact bald eagles that are in or visit the area, the sponsor or its agent will contact SD DENR for approval to complete the action before proceeding. If a bald eagle(s) is observed at any project work site, all mechanical activities at the site will be suspended until the bird(s) leaves the site under its own volition.

8.3 Whooping Crane

Whooping cranes are known to migrate through South Dakota. If a whooping crane(s) is observed at any project work site, all mechanical activities at the site will be suspended until the bird(s) leaves the site under its own volition. Spring and fall migrations of the species through the state occur during mid to late April and mid to late October.

8.4 Piping Plover

The piping plover is a small shorebird approximately seven inches long. It can be recognized by a single black neck band, a short, stout bill, pale breast and orange legs. The piping plover is listed as threatened on both the federal and South Dakota State threatened or endangered species lists. Piping plovers nest primarily on un-vegetated sandy islands on the Missouri River, however, the species has nested along lakeshores in northeast South Dakota. Project activities that disturb possible nesting sites or reduce food sources are not planned. If Piping plover(s) are observed near any project work site, all mechanical activities at the site will be suspended until the bird(s) leave the site under their own volition. If they remain a new site will be chosen. If any actions become necessary during the project that might impact piping plovers, the sponsor will contact SD DENR for approval to complete the action before proceeding.

3.3 Milestone Table (Segment 2)

Objective/Task	Quantity	Year 1				Year 2				Year 3			
		Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar
Objective 1.													
Task 1: Develop Project Management Structure													
Product 1. Project Management Structure													
Advisory Council	3	1				1				1			
Memoranda of Understanding	2	2											
Project Conservation Technician	1	1											
Project Segment 3 Workplan	1										1		
Objective 2: Protect and Restore Water Quality													
Task 2: Install BMPs													
Product 2. Animal Waste Management Systems													
Engineering Designs	2			1				1					
Conventional AWMS	1						1						
Alternative AWMS	1						1						
Relocation	1						1						
Product 3. Riparian Buffers													
Conservation Reserve Program	300 ac.		100				100				100		
EPA 319 RAM Program	375 ac.		100				125				150		
Product 4. Pasture/Hayland Planting	350 ac.	100				150				100			
Product 5. Grazing Management Improvements	3,000 ac.			1000				1000				1000	
Task 3: Reduce Shoreline & Streambank Erosion													
Product 6. Shoreline/Streambank Stabilization													
Hard Practices	1,500 lf		500				500				500		
Soft Practices	2,000 lf		500				1,000				500		
Objective 3: Public Outreach													
Task 4: Develop Multimedia Program													
Product 7. Project Web Site	1,200 hits			200				1,000				1,000	
Product 8. News Releases													
News Articles	6	1		1		1		1		1		1	
Radio/Television Interviews	6		1		1		1		1		1		1
Product 9. Direct Personal Contact													
Farm, Home, and Sports Shows (winter shows)	9				3				3				3
Fact Sheets	4			2				2					
Objective 4: Monitor, Evaluate, & Report Progress													
Task 5: Water Quality Monitoring													
Product 10. Water Quality Data													
In-Lake Water Quality Samples	70	14	20			8	10			8	10		
Tributary Water Quality Samples	?												
Task 6: Project Reports													
Product 11. Project Reports													
Annual GRTS	3			1				1				1	
Monthly/Semi-Monthly Progress/Financial Reports	54	5	4	5	4	5	4	5	4	5	4	5	4
Annual Reports	3				1				1				1
Final Project Report	1												1

Part 1 – Funding Sources**Northeast Glacial Lakes Watershed Improvement and Protection Project – Segment 2**

	Year 1	Year 2	Year 3	TOTAL
EPA Section 319 Funds	\$185,605.26	\$378,230.27	\$201,606.47	\$765,442.00
Other Federal Funds *	\$0.00	\$0.00	\$0.00	\$0.00
SD I & E	\$4,000.00	\$0.00	\$0.00	\$4,000.00
Subtotal	<i>\$189,605.26</i>	<i>\$378,230.27</i>	<i>\$201,606.47</i>	\$769,442.00
State and Local Match				
Cons. Commission	\$29,231.83	\$30,377.33	\$29,231.84	\$88,841.00
JRWDD	\$3,120.00	\$3,120.00	\$3,120.00	\$9,660.00
Local	\$105,364.90	\$171,616.40	\$115,002.70	\$391,984.00
Subtotal	<i>\$137,716.73</i>	<i>\$205,113.73</i>	<i>\$147,354.54</i>	\$490,185.00
Total Budget	\$327,321.99	\$583,344.00	\$348,961.01	\$1,259,627.00

* Other Federal Funds may be utilized where possible, however no local match generated by these programs match project state and federal grant funds;

US Fish & Wildlife Service – Partners for Wildlife (non-matching local funds)

US Dept. of Agriculture

Natural Resources Conservation Service:

Environmental Quality Incentive Program (EQIP)

Wildlife Habitat Incentive Program (WHIP)

Farm Service Agency:

Conservation Reserve Program (CRP)

Part 2 Funding

Northeast Glacial Lake Watershed Improvement and Protection Project - Segment 1

Item	Year 1	Year 2	Total	319-EPA	FWS	USDA/NRCS	SD I&E	JRWDD	Cons Comm	Local
Personnel Support										
Project Coordinator										
Salary and Benefits	\$ 38,718.00	\$ 38,718.00	\$ 77,436.00	\$ 58,436.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 5,000.00	\$ 10,000.00
Administrative and Support										
Support/Technical Staff	\$ 23,511.50	\$ 23,511.50	\$ 47,023.00	\$ 22,695.00	\$ -	\$ -	\$ -	\$ 6,000.00	\$ 11,328.00	\$ 7,000.00
Archeologist	\$ 1,000.00	\$ 2,000.00	\$ 3,000.00	\$ 2,250.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750.00
Subtotal	\$ 63,229.50	\$ 64,229.50	\$ 127,459.00	\$ 83,381.00	\$ -	\$ -	\$ -	\$ 10,000.00	\$ 16,328.00	\$ 17,750.00
Supplies/Office Equipment/Travel	\$ 1,500.00	\$ 1,500.00	\$ 3,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000.00
Subtotal	\$ 1,500.00	\$ 1,500.00	\$ 3,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000.00
Objective 1.										
Task 1: Develop Project Management Structure										
Product 1. Project Management Structure										
Advisory Council - 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Strategic Plan - 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Practice Manual - 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Memoranda of Understanding - 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Project Segment Two Workplan - 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(above product costs included in personnel and travel)										
Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Objective 2/Task 2: BMP Installation										
Product 2. Animal Waste Management Systems										
Engineering Services 4 @ \$15,000 each (75% c/s)	\$ 60,000.00	\$ -	\$ 60,000.00	\$ 45,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,000.00
Conventional AWMS 1 @ \$100,000 each (75% c/s)	\$ -	\$ 100,000.00	\$ 100,000.00	\$ 75,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,000.00
Alternative AWMS 3 @ \$60,000 each (75% c/s)	\$ -	\$ 180,000.00	\$ 180,000.00	\$ 135,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,000.00
Product 3. Riparian Buffers										
Fencing - 10,000 LF 4-wire barb @ \$.90 LF (60% c/s)	\$ 2,700.00	\$ 6,300.00	\$ 9,000.00	\$ 5,400.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,600.00
Nose Pump - 4 @ \$500 ea. (60% c/s)	\$ 500.00	\$ 1,500.00	\$ 2,000.00	\$ 1,200.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 800.00
Wells - 2 @ \$4,500 ea. (60% c/s)	\$ -	\$ 9,000.00	\$ 9,000.00	\$ 5,400.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,600.00
Solar Pump - 2 @ \$2,500 (60% c/s)	\$ -	\$ 5,000.00	\$ 5,000.00	\$ 3,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000.00
Pipelines - 3000 LF @ \$.33 LF (60% c/s)	\$ 3,130.00	\$ 6,260.00	\$ 9,390.00	\$ 5,634.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,756.00
Tanks - 4 @ \$1,500 (60% c/s)	\$ 3,000.00	\$ 3,000.00	\$ 6,000.00	\$ 3,600.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,400.00
Livestock Crossings - 2 @ \$4,000 ea. (60% c/s)	\$ -	\$ 8,000.00	\$ 8,000.00	\$ 4,800.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,200.00
Product 4. Improved Grazing Management										
Fencing - 15,000 LF 4-wire barb @ \$.90 LF (50% c/s)	\$ -	\$ 13,500.00	\$ 13,500.00	\$ -	\$ 2,250.00	\$ 2,250.00	\$ -	\$ -	\$ 2,250.00	\$ 6,750.00
Nose Pump - 4 @ \$500 ea. (50% c/s)	\$ -	\$ 2,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00
Wells - 2 @ \$4,500 ea. (50% c/s)	\$ -	\$ 9,000.00	\$ 9,000.00	\$ -	\$ -	\$ 2,250.00	\$ -	\$ -	\$ 2,250.00	\$ 4,500.00
Solar Pump - 2 @ \$2,500 (50% c/s)	\$ -	\$ 5,000.00	\$ 5,000.00	\$ -	\$ -	\$ 2,500.00	\$ -	\$ -	\$ -	\$ 2,500.00
Pipelines - 5,000 LF @ \$.33 LF (75%-50% c/s)	\$ -	\$ 15,650.00	\$ 15,650.00	\$ -	\$ -	\$ 7,042.50	\$ -	\$ -	\$ 3,130.00	\$ 5,477.50
Tanks - 4 @ \$1,500 (75%-50% c/s)	\$ -	\$ 6,000.00	\$ 6,000.00	\$ -	\$ -	\$ 2,250.00	\$ -	\$ -	\$ 1,500.00	\$ 2,250.00

Item	Year 1	Year 2	Total	319-EPA	FWS	USDA/NRCS	SD I&E	JRWDD	Cons. Comm.	Local
Dugouts/Cleanouts - 4 @ \$2,250 ea. (50% c/s)	\$ -	\$ 9,000.00	\$ 9,000.00	\$ -	\$ -	\$ 2,250.00	\$ -	\$ -	\$ 2,250.00	\$ 4,500.00
Product 5. Shoreline/Streambank Stabilization										
Hard practices - 300 LF @ \$75 LF (60% c/s)	\$ -	\$ 22,500.00	\$ 22,500.00	\$ 13,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,000.00
Soft practices - 2000 LF @ \$5 LF (60% c/s)	\$ 2,500.00	\$ 7,500.00	\$ 10,000.00	\$ 6,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000.00
Subtotal	\$ 71,830.00	\$ 409,210.00	\$ 481,040.00	\$ 303,534.00	\$ 2,250.00	\$ 18,542.50	\$ -	\$ -	\$ 12,380.00	\$ 144,333.50
Objective 3: Public Outreach										
Task 4: Develop Multimedia Program										
Product 6. Project Web Site										
Web Site Development - 1 @ \$2,710	\$ 1,750.00	\$ 960.00	\$ 2,710.00	\$ 2,710.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Product 7. News Releases										
News Articles (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Radio/Television Interviews (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Product 8. Direct Personal Contact										
Winter Shows 6 @ \$75 ea. (booth rental)	\$ 225.00	\$ 225.00	\$ 450.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 450.00
Fact Sheets - 8 @ \$50	\$ 25.00	\$ 25.00	\$ 50.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50.00
Project Brochure - 1 @ \$500	\$ 500.00	\$ -	\$ 500.00	\$ 375.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 125.00
Lakes Are Cool Field Trips - 24 @ \$650 ea.	\$ 7,800.00	\$ 7,800.00	\$ 15,600.00	\$ -	\$ -	\$ -	\$ 5,040.00	\$ -	\$ -	\$ 10,560.00
Subtotal	\$ 10,300.00	\$ 9,010.00	\$ 19,310.00	\$ 3,085.00	\$ -	\$ -	\$ 5,040.00	\$ -	\$ -	\$ 11,185.00
Objective 4: Monitor, Evaluate, and Report Progress										
Task 5: Water Quality Monitoring										
Product 9. Water Quality Data										
Water Quality Sample Sets - 28 sets @ \$244 ea.	\$ 3,416.00	\$ 3,416.00	\$ 6,832.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,832.00
QA/QC Sample Sets 4 sets @ \$203 ea.	\$ 406.00	\$ 406.00	\$ 812.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 812.00
Boat/Storage/Sampling Equipment	\$ 1,999.50	\$ 1,999.50	\$ 3,999.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,999.00
Product 10. Watershed Maps										
Maps (3) (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 6: Report Progress										
Product 11. Project Reports										
Semi-annual GRTS (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual GRTS (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Semi-monthly/monthly (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Reports (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Final Project Report (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 5,821.50	\$ 5,821.50	\$ 11,643.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,643.00
Total Project Cost	\$ 152,681.00	\$ 489,771.00	\$ 642,452.00	\$ 390,000.00	\$ 2,250.00	\$ 18,542.50	\$ 5,040.00	\$ 10,000.00	\$ 28,708.00	\$ 187,911.50

Part 2 Funding
Northeast Glacial Lake Watershed Improvement and Protection Project - Segment 2

Item	Year 1	Year 2	Year 3	Total	319-EPA	SD I&E	JRWDD	Cons Comm	Local
Personnel Support									
Project Coordinator									
Salary and Benefits	\$ 42,657.33	\$ 42,657.33	\$ 42,657.34	\$ 127,972.00	\$ 95,979.00	\$ -	\$ -	\$ 31,993.00	\$ -
Project Conservation Technician									
Salary and Benefits	\$ 36,563.66	\$ 36,563.67	\$ 36,563.67	\$ 109,691.00	\$ 82,268.00	\$ -	\$ -	\$ 27,423.00	\$ -
Administrative Support	\$ 14,452.00	\$ 14,452.00	\$ 14,452.00	\$ 43,356.00	\$ 17,550.00	\$ -	\$ 9,360.00	\$ 5,850.00	\$ 10,596.00
Subtotal	\$ 93,672.99	\$ 93,673.00	\$ 93,673.01	\$ 281,019.00	\$ 195,797.00	\$ -	\$ 9,360.00	\$ 65,266.00	\$ 10,596.00
Travel	\$ 1,375.00	\$ 1,375.00	\$ 1,375.00	\$ 4,125.00	\$ 4,125.00	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 1,375.00	\$ 1,375.00	\$ 1,375.00	\$ 4,125.00	\$ 4,125.00	\$ -	\$ -	\$ -	\$ -
Objective 1.									
Task 1: Develop Project Management Structure									
Product 1. Project Management Structure									
Office Rent	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 12,000.00	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00
Laptop Computer	\$ 2,000.00	\$ -	\$ -	\$ 2,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ -
(below product costs included in personnel and travel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Advisory Council	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Memoranda of Understanding - 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Project Conservation Technician	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Segment Three Workplan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 6,000.00	\$ 4,000.00	\$ 4,000.00	\$ 14,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ 12,000.00
Objective 2/Task 2: BMP Installation									
Product 2. Animal Waste Management Systems									
Engineering Services 2 @ \$15,000 each (75% c/s)	\$ 15,000.00	\$ 15,000.00	\$ -	\$ 30,000.00	\$ 22,500.00	\$ -	\$ -	\$ -	\$ 7,500.00
Conventional AWMS 1 @ \$100,000 each (75% c/s)	\$ -	\$ 100,000.00	\$ -	\$ 100,000.00	\$ 75,000.00	\$ -	\$ -	\$ -	\$ 25,000.00
Alternative AWMS 1 @ \$60,000 each (75% c/s)	\$ -	\$ 60,000.00	\$ -	\$ 60,000.00	\$ 45,000.00	\$ -	\$ -	\$ -	\$ 15,000.00
Relocation 1 @ \$75,000 each (75% c/s)	\$ -	\$ 75,000.00	\$ -	\$ 75,000.00	\$ 56,250.00	\$ -	\$ -	\$ -	\$ 18,750.00
Subtotal	\$ 15,000.00	\$ 250,000.00	\$ -	\$ 265,000.00	\$ 198,750.00	\$ -	\$ -	\$ -	\$ 66,250.00
Product 3. Riparian Buffers									
Signing, Incentive, Maintenance Costs @ \$975 acre	\$ 97,500.00	\$ 121,875.00	\$ 146,250.00	\$ 365,625.00	\$ 219,375.00	\$ -	\$ -	\$ -	\$ 146,250.00
Alternate Water Development (60% c/s)	\$ 28,175.00	\$ 28,175.00	\$ 28,175.00	\$ 84,525.00	\$ 50,715.00	\$ -	\$ -	\$ -	\$ 33,810.00
Fence 13,000 lf @ \$0.95 lf. (60% c/s)	\$ 4,116.00	\$ 4,116.00	\$ 4,118.00	\$ 12,350.00	\$ 7,410.00	\$ -	\$ -	\$ -	\$ 4,940.00
Livestock Crossings - 4 @ \$3,750 ea. (60% c/s)	\$ 3,750.00	\$ 7,500.00	\$ 3,750.00	\$ 15,000.00	\$ 9,000.00	\$ -	\$ -	\$ -	\$ 6,000.00
Subtotal	\$ 133,541.00	\$ 161,666.00	\$ 182,293.00	\$ 477,500.00	\$ 286,500.00	\$ -	\$ -	\$ -	\$ 191,000.00
Product 4. Pasture/Hayland Planting									
Seed, Seeding Operation & Prep @ \$40 acre (50% c/s)	\$ 4,000.00	\$ 6,000.00	\$ 4,000.00	\$ 14,000.00	\$ -	\$ -	\$ -	\$ 7,000.00	\$ 7,000.00
Product 5. Improved Grazing Management									
Water Development (30% c/s)	\$ 16,830.00	\$ 16,840.00	\$ 16,830.00	\$ 50,500.00	\$ -	\$ -	\$ -	\$ 15,150.00	\$ 35,350.00
Fence 5,000 lf. @ \$0.95 lf. (30% c/s)	\$ 1,425.00	\$ 1,900.00	\$ 1,425.00	\$ 4,750.00	\$ -	\$ -	\$ -	\$ 1,425.00	\$ 3,325.00
Subtotal	\$ 18,255.00	\$ 18,740.00	\$ 18,255.00	\$ 55,250.00	\$ -	\$ -	\$ -	\$ 16,575.00	\$ 38,675.00
Item	Year 1	Year 2	Year 3	Total	319-EPA	SD I&E	JRWDD	Cons. Comm.	Local
Product 6. Shoreline/Streambank Stabilization									
Hard practices - 1,500 LF @ \$75 LF (60% c/s)	\$ 37,500.00	\$ 37,500.00	\$ 37,500.00	\$ 112,500.00	\$ 67,500.00	\$ -	\$ -	\$ -	\$ 45,000.00
Soft practices - 2,000 LF @ \$5 LF (60% c/s)	\$ 2,500.00	\$ 5,000.00	\$ 2,500.00	\$ 10,000.00	\$ 6,000.00	\$ -	\$ -	\$ -	\$ 4,000.00
Subtotal	\$ 40,000.00	\$ 42,500.00	\$ 40,000.00	\$ 122,500.00	\$ 73,500.00	\$ -	\$ -	\$ -	\$ 49,000.00
Objective 3: Public Outreach									
Task 4: Develop Multimedia Program									
Product 7. Project Web Site									
Web Site Domain Name	\$ 120.00	\$ 120.00	\$ 120.00	\$ 360.00	\$ 360.00	\$ -	\$ -	\$ -	\$ -
Web Site Maintenance	\$ 1,470.00	\$ 1,470.00	\$ 1,470.00	\$ 4,410.00	\$ 4,410.00	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 1,590.00	\$ 1,590.00	\$ 1,590.00	\$ 4,770.00	\$ 4,770.00	\$ -	\$ -	\$ -	\$ -
Product 8. News Releases									
News Articles (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Radio/Television Interviews (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Product 9. Direct Personal Contact									
Winter Shows 9 @ \$75 ea. (booth rental)	\$ 225.00	\$ 225.00	\$ 225.00	\$ 675.00	\$ -	\$ -	\$ -	\$ -	\$ 675.00
Fact Sheets - 8 @ \$50	\$ 25.00	\$ 25.00	\$ -	\$ 50.00	\$ -	\$ -	\$ -	\$ -	\$ 50.00
Postage	\$ 120.00	\$ 120.00	\$ 120.00	\$ 360.00	\$ -	\$ -	\$ -	\$ -	\$ 360.00
Subtotal	\$ 370.00	\$ 370.00	\$ 345.00	\$ 1,085.00	\$ -	\$ -	\$ -	\$ -	\$ 1,085.00
Objective 4: Monitor, Evaluate, and Report Progress									
Task 5: Water Quality Monitoring									
Product 10. Water Quality Data									
In-Lake Water Quality Sample Sets - 78 sets @ \$143 ea.	\$ 3,718.00	\$ 1,430.00	\$ 1,430.00	\$ 6,578.00	\$ -	\$ -	\$ -	\$ -	\$ 6,578.00
Boat/Storage/Sampling Equipment	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 6,000.00	\$ -	\$ -	\$ -	\$ -	\$ 6,000.00
Pickrel Tributary Water Sampling	\$ 7,800.00	\$ -	\$ -	\$ 7,800.00	\$ -	\$ 4,000.00	\$ -	\$ -	\$ 3,800.00
Subtotal	\$ 13,518.00	\$ 3,430.00	\$ 3,430.00	\$ 20,378.00	\$ -	\$ 4,000.00	\$ -	\$ -	\$ 16,378.00
Task 6: Report Progress									
Product 11. Project Reports									
Annual GRTS (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Semi-monthly/monthly (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Reports (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Final Project Report (cost included in personnel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Project Cost	\$ 327,321.99	\$ 583,344.00	\$ 348,961.01	\$ 1,259,627.00	\$ 765,442.00	\$ 4,000.00	\$ 9,360.00	\$ 88,841.00	\$ 391,984.00

Part 2 Funding
Northeast Glacial Lake Watershed Improvement and Protection Project - Combined Budget

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Total	319-EPA	FWS	USDA	SD I&E	JRWDD	Cons Comm	Local
Personnel Support													
Project Coordinator													
Salary and Benefits	\$ 38,718.00	\$ 38,718.00	\$ 42,657.33	\$ 42,657.33	\$ 42,657.34	\$ 205,408.00	\$ 154,415.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 36,993.00	\$ 10,000.00
Project Conservation Technician													
Salary and Benefits	\$ -	\$ -	\$ 36,563.66	\$ 36,563.67	\$ 36,563.67	\$ 109,691.00	\$ 82,268.00	\$ -	\$ -	\$ -	\$ -	\$ 27,423.00	\$ -
Administrative Support	\$ 23,511.50	\$ 23,511.50	\$ 14,452.00	\$ 14,452.00	\$ 14,452.00	\$ 90,379.00	\$ 40,245.00	\$ -	\$ -	\$ -	\$ 15,360.00	\$ 17,178.00	\$ 17,596.00
Archeologist	\$ 1,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 2,250.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750.00
Subtotal	\$ 63,229.50	\$ 64,229.50	\$ 93,673.00	\$ 93,673.00	\$ 93,673.00	\$ 408,478.00	\$ 279,178.00	\$ -	\$ -	\$ -	\$ 19,360.00	\$ 81,594.00	\$ 28,346.00
Supplies/Office Equipment/Travel	\$ 1,500.00	\$ 1,500.00	\$ 1,375.00	\$ 1,375.00	\$ 1,375.00	\$ 7,125.00	\$ 4,125.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000.00
Subtotal	\$ 1,500.00	\$ 1,500.00	\$ 1,375.00	\$ 1,375.00	\$ 1,375.00	\$ 7,125.00	\$ 4,125.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000.00
Objective 1.													
Task 1: Develop Project Management Structure													
Product 1. Project Management Structure													
Office Rent	\$ -	\$ -	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 12,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00
Laptop Computer	\$ -	\$ -	\$ 2,000.00	\$ -	\$ -	\$ 2,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ -	\$ -	\$ 6,000.00	\$ 4,000.00	\$ 4,000.00	\$ 14,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00
Objective 2/Task 2: BMP Installation													
Product 2. Animal Waste Management Systems													
Engineering Services 6 @ \$15,000 each (75% c/s)	\$ 60,000.00	\$ -	\$ 15,000.00	\$ 15,000.00	\$ -	\$ 90,000.00	\$ 67,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,500.00
Conventional AWMS 2 @ \$100,000 each (75% c/s)	\$ -	\$ 100,000.00	\$ -	\$ 100,000.00	\$ -	\$ 200,000.00	\$ 150,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000.00
Alternative AWMS 4 @ \$60,000 each (75% c/s)	\$ -	\$ 180,000.00	\$ -	\$ 60,000.00	\$ -	\$ 240,000.00	\$ 180,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000.00
Relocation 1 @ \$75,000 each (75% c/s)	\$ -	\$ -	\$ -	\$ 75,000.00	\$ -	\$ 75,000.00	\$ 56,250.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,750.00
Subtotal	\$ 60,000.00	\$ 280,000.00	\$ 15,000.00	\$ 250,000.00	\$ -	\$ 605,000.00	\$ 453,750.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 151,250.00
Product 3. Riparian Buffers													
Signing, Incentive, Maintenance Costs @ \$975 acre	\$ -	\$ -	\$ 97,500.00	\$ 121,875.00	\$ 146,250.00	\$ 365,625.00	\$ 219,375.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 146,250.00
Alternate Water Development (60% c/s)	\$ 6,630.00	\$ 24,760.00	\$ 28,175.00	\$ 28,175.00	\$ 28,175.00	\$ 115,915.00	\$ 69,549.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46,366.00
Fence 23,000 lf (60% c/s)	\$ 2,700.00	\$ 6,300.00	\$ 4,116.00	\$ 4,116.00	\$ 4,118.00	\$ 21,350.00	\$ 12,810.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,540.00
Livestock Crossings - 4 @ \$3,750 ea. (60% c/s)	\$ -	\$ 8,000.00	\$ 3,750.00	\$ 7,500.00	\$ 3,750.00	\$ 23,000.00	\$ 13,800.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,200.00
Subtotal	\$ 9,330.00	\$ 39,060.00	\$ 133,541.00	\$ 161,666.00	\$ 182,293.00	\$ 525,890.00	\$ 315,534.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 210,356.00
Product 4. Pasture/Hayland Planting													
Seed, Seeding Operation & Prep @ \$40 acre (50% c/s)	\$ -	\$ -	\$ 4,000.00	\$ 6,000.00	\$ 4,000.00	\$ 14,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,000.00	\$ 7,000.00
Product 5. Improved Grazing Management													
Water Development (30% c/s)	\$ -	\$ 46,650.00	\$ 16,830.00	\$ 16,840.00	\$ 16,830.00	\$ 97,150.00	\$ -	\$ -	\$ 16,292.50	\$ -	\$ -	\$ 25,280.00	\$ 55,577.50
Fence 20,000 lf. (30% c/s)	\$ -	\$ 13,500.00	\$ 1,425.00	\$ 1,900.00	\$ 1,425.00	\$ 18,250.00	\$ -	\$ 2,250.00	\$ 2,250.00	\$ -	\$ -	\$ 3,675.00	\$ 10,075.00
Subtotal	\$ -	\$ 60,150.00	\$ 18,255.00	\$ 18,740.00	\$ 18,255.00	\$ 115,400.00	\$ -	\$ 2,250.00	\$ 18,542.50	\$ -	\$ -	\$ 28,955.00	\$ 65,652.50
Product 6. Shoreline/Streambank Stabilization													
Hard practices - 1,800 LF @ \$75 LF (60% c/s)	\$ -	\$ 22,500.00	\$ 37,500.00	\$ 37,500.00	\$ 37,500.00	\$ 135,000.00	\$ 81,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54,000.00
Soft practices - 4,000 LF @ \$5 LF (60% c/s)	\$ 2,500.00	\$ 7,500.00	\$ 2,500.00	\$ 5,000.00	\$ 2,500.00	\$ 20,000.00	\$ 12,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000.00
Subtotal	\$ 2,500.00	\$ 30,000.00	\$ 40,000.00	\$ 42,500.00	\$ 40,000.00	\$ 155,000.00	\$ 93,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 62,000.00

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Total	319-EPA	FWS	USDA	SD I&E	JRWDD	Cons. Comm.	Local
Objective 3: Public Outreach													
Task 4: Develop Multimedia Program													
Product 7. Project Web Site													
Web Site Development	\$ 1,750.00	\$ 960.00	\$ -	\$ -	\$ -	\$ 2,710.00	\$ 2,710.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Web Site Domain Name	\$ -	\$ -	\$ 120.00	\$ 120.00	\$ 120.00	\$ 360.00	\$ 360.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Web Site Maintenance	\$ -	\$ -	\$ 1,470.00	\$ 1,470.00	\$ 1,470.00	\$ 4,410.00	\$ 4,410.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 1,750.00	\$ 960.00	\$ 1,590.00	\$ 1,590.00	\$ 1,590.00	\$ 7,480.00	\$ 7,480.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Product 9. Direct Personal Contact													
Winter Shows	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 1,125.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,125.00
Fact Sheets	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	\$ -	\$ 100.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100.00
Project Brochure	\$ 500.00	\$ -	\$ -	\$ -	\$ -	\$ 500.00	\$ 375.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 125.00
Lakes Are Cool	\$ 7,800.00	\$ 7,800.00	\$ -	\$ -	\$ -	\$ 15,600.00	\$ -	\$ -	\$ -	\$ 5,040.00	\$ -	\$ -	\$ 11,185.00
Postage	\$ -	\$ -	\$ 120.00	\$ 120.00	\$ 120.00	\$ 360.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 360.00
Subtotal	\$ 8,550.00	\$ 8,050.00	\$ 370.00	\$ 370.00	\$ 345.00	\$ 17,685.00	\$ -	\$ -	\$ -	\$ 5,040.00	\$ -	\$ -	\$ 12,895.00
Objective 4: Monitor, Evaluate, and Report Progress													
Task 5: Water Quality Monitoring													
Product 10. Water Quality Data													
In-Lake Water Quality Sampling	\$ 3,822.00	\$ 3,822.00	\$ 3,718.00	\$ 1,430.00	\$ 1,430.00	\$ 14,222.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,222.00
Boat/Storage/Sampling Equipment	\$ 1,999.50	\$ 1,999.50	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 9,999.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,999.00
Pickereel Tributary Water Sampling	\$ -	\$ -	\$ 7,800.00	\$ -	\$ -	\$ 7,800.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ -	\$ -	\$ 3,800.00
Subtotal	\$ 5,821.50	\$ 5,821.50	\$ 13,518.00	\$ 3,430.00	\$ 3,430.00	\$ 32,021.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ -	\$ -	\$ 28,021.00
Total Project Cost	\$ 152,681.00	\$ 489,771.00	\$ 327,322.00	\$ 583,344.00	\$ 348,961.00	\$ 1,902,079.00	\$ 1,155,442.00	\$ 2,250.00	\$ 18,542.50	\$ 9,040.00	\$ 19,360.00	\$ 117,549.00	\$ 579,895.50